WHAT IS CLAIMED IS:

1. A substantially pure τ-conotoxin peptide selected from the group consisting of:

Phe-Cys-Cys-Xaa_1-Val-Ile-Arg-Xaa_2-Cys-Cys-Xaa_3 (SEQ ID NO:2);

Cys-Cys-Gln-Thr-Phe-Xaa_2-Xaa_3-Cys-Cys-Gln (SEQ ID NO:4);

Xaa_4-Gly-Xaa_3-Cys-Cys-Xaa_5-Xaa_6-Asn-Ile-Ala-Cys-Cys-Ile (SEQ ID NO:5);

Gly-Cys-Cys-Ala-Arg-Leu-Thr-Cys-Cys-Val (SEQ ID NO:6);

Asn-Gly-Cys-Cys-Xaa_1-Xaa_5-Gln-Met-Arg-Cys-Cys-Thr (SEQ ID NO:7);

Asp-Xaa_3-Asn-Ser-Cys-Cys-Gly-Xaa_5-Asn-Xaa_1-Gly-Cys-Cys-Xaa_1-Xaa_3 (SEQ ID NO:8);

Xaa_4-Gly-Xaa_3-Cys-Cys-Xaa_5-Xaa_6-Asn-Ile-Arg-Cys-Cys-Val (SEQ ID NO:9);

Xaa_6-Cys-Cys-Xaa_6-Asp-Gly-Xaa_3-Cys-Cys-Thr-Ala-Ala-Xaa_1-Leu-Thr (SEQ ID NO:10);

Gly-Cys-Cys-Xaa_6-Asp-Gly-Xaa_3-Cys-Cys-Thr-Ala-Ala-Xaa_1-Leu-Thr (SEQ ID NO:11);

Asn-Gly-Cys-Cys-Arg-Ala-Gly-Asp-Cys-Cys-Ser-Arg-Phe-Xaa_6-Ile-Xaa_5-Xaa_6-Asn-Asp-Phe (SEQ ID NO:12);

Asn-Ala-Cys-Cys-Ile-Val-Arg-Gln-Cys-Cys (SEQ ID NO:13);

Asn-Gly-Cys-Cys-Arg-Ala-Gly-Asp-Cys-Cys-Ser (SEQ ID NO:14);

Cys-Cys-Xaa_1-Arg-Arg-Leu-Ala-Cys-Cys-Ile-Ile (SEQ ID NO:15);

Cys-Cys-Xaa_1-Asn-Xaa_5-Xaa_1-Cys-Cys-Phe-Ile (SEQ ID NO:16);

Gly-Cys-Cys-Ala-Met-Leu-Thr-Cys-Cys-Val (SEQ ID NO:17);

Leu-Cys-Cys-Val-Thr-Xaa_6-Asp-Xaa_3-Cys-Cys-Xaa_6-Xaa_3-Xaa_3 (SEQ ID NO:18); and

Val-Cys-Cys-Arg-Xaa_1-Val-Gln-Asp-Cys-Cys-Ser (SEQ ID NO:19);

wherein Xaa_1 is Pro or hydroxy-Pro; Xaa_2 is Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa_3 is Trp or halo-Trp; Xaa_4 is Gln or pyro-Glu; Xaa_5 is Lys, N-methyl-Lys, N,N-dimethyl-Lys or N,n,N-trimethyl-Lys, Xaa_6 is Glu or gamma-carboxy-Glu (Gla); and the C-terminus contains a carboxyl or amide group.

2. The substantially pure τ-conotoxin peptide of claim 1, wherein Xaa_6 is Glu.

3. The substantially pure τ-conotoxin peptide of claim 1, wherein Xaa_5 is Lys.

4. The substantially pure τ-conotoxin peptide of claim 1, wherein Xaa_4 is Gln.

5. The substantially pure τ-conotoxin peptide of claim 1, wherein Xaa_2 is mono-iodo-Tyr.

6. The substantially pure τ-conotoxin peptide of claim 1, wherein Xaa_2 is di-iodo-Tyr.

7. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:2, wherein Xaa_1 is Pro, Xaa_2 is Tyr and Xaa_3 is Trp.

8. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:4, wherein Xaa_2 is Tyr and Xaa_3 is Trp.

9. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:5, wherein wherein Xaa_3 is Trp, Xaa_4 is Gln, Xaa_5 is Lys and Xaa_6 is Glu.

10. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:6.

11. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:7, wherein Xaa_1 is Pro and Xaa_5 is Lys.

12. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:8, wherein Xaa_1 is Pro, Xaa_3 is Trp and Xaa_5 is Lys.

13. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:9, wherein Xaa_3 is Trp, Xaa_4 is Gln, Xaa_5 is Lys and Xaa_6 is Glu.

14. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:10, wherein Xaa_1 is Pro, Xaa_3 is Trp and Xaa_6 is Glu.

15. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:11, wherein Xaa_1 is Pro, Xaa_3 is Trp and Xaa_6 is Glu.

16. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:12, wherein Xaa_5 is Lys and Xaa_6 is Glu.

17. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:13.

18. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:14.

19. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:15, wherein Xaa_1 is Pro.

20. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:16, wherein Xaa_1 is Pro and Xaa_5 is Lys.

21. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:17.

22. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:18, wherein Xaa_3 is Trp and Xaa_6 is Glu.

23. The substantially pure τ-conotoxin peptide of claim 1, wherein said peptide has the sequence set forth in SEQ ID NO:19, wherein Xaa_1 is Pro.

24. A method for inducing analgesia in an individual which comprises administering an effective amount of a substantially pure τ-conotoxin peptide having the generic formula I: Xaa_1-Xaa_2-Xaa_3-Xaa_4-Cys-Cys-Xaa_5-Xaa_6-Xaa_7-Xaa_8-Xaa_9-Cys-Cys-Xaa_{10}-Xaa_{11}-Xaa_{12}-Xaa_{13}-Xaa_{14}-Xaa_{15}-Xaa_{16}-Xaa_{17}-Xaa_{18}-Xaa_{19} (SEQ ID NO:1), wherein Xaa_1 is des-Xaa_1, Asp, Glu or γ-carboxy-Glu (Gla); Xaa_2 is des-Xaa_2, Gln, Asn, Glu, Trp (D or L), neo-Trp, halo-Trp or any unnatural aromatic amino acid; Xaa_3 is des-Xaa_3, Gly, Ala, Asn or Gln; Xaa_4 is des-Xaa_4,Val, Leu (D or L), Ile, Ala, Gly, Glu, Gla, Asp, Ser, Thr, Phe, Trp (D or L), neo-Trp, halo-Trp (D or L) or any unnatural aromatic amino acid; Xaa_5 is Pro, hydroxy-Pro, Gln, Asn, Glu, Gla, Ala, Gly, Lys, Arg, Ile, Val, homoarginine, ornithine, N-methyl-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys or any unnatural basic amino acid; Xaa_6 is Val, Phe, Thr, Ser, Glu, Gla, Asp, Asn, Gln, Ala, Gly, Ile, Leu (D or L), Met, Pro, hydroxy-Pro, Arg, homoarginine, ornithine, Lys, N-methyl-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any unnatural basic amino acid or any unnatural aromatic amino acid; Xaa_7 is any Val, Ile, Asn, Leu (D or L), Gln, Gly, Ala, Phe, Glu, Gla, Arg, ornithine, homoarginine, Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any unnatural basic amino acid or any unnatural aromatic amino acid; Xaa_8 is Ile, Leu (D or L), Met, Thr, Ser, Pro, hydroxy-Pro, Gln, Asp, Glu, Gla, Asn, Arg, homoarginine, ornithine, Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr,

O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr, any unnatural basic amino acid, any unnatural aromatic amino acid or any unnatural hydroxy containing amino acid; Xaa_9 is des-Xaa_9, Ala, Gly, Asp, Glu, Gla, Trp (D or L) neo-Trp, halo-Trp (D or L), Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, Arg, homoarginine, ornithine, Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any unnatural basic amino acid; Xaa_{10} is des-Xaa_{10}, Ile, Leu (D or L), Val, Glu, Gla, Asp, Thr, Ser, Pro, hydroxy-Pro, Trp (D or L), neo-Trp, halo-Trp (D or L), Phe, any unnatural aromatic amino acid or any unnatural hydroxy containing amino acid; Xaa_{11} is des-Xaa_{11}, Gln, Asn, Leu (D or L), Ile, Val, Ala, Gly, Trp (D or L), neo-Trp, halo-Trp (D or L), Arg, homoarginine, ornithine, Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any unnatural basic amino acid or any unnatural aromatic amino acid; Xaa_{12} is des-Xaa_{12}, Ala, Gly, Phe, Trp (D or L), neo-Trp, halo-Trp (D or L) or any unnatural aromatic amino acid; Xaa_{13} is des-Xaa_{13}, Glu, Gla, Asp, Phe or any unnatural aromatic amino acid; Xaa_{14} is des-Xaa_{14}, Ile, Val or Leu (D or L); Xaa_{15} is des-Xaa_{15}, Thr, Ser, Arg, homoarginine, ornithine, Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys or any unnatural basic amino acid; Xaa_{16} is des-Xaa_{16}, Glu, Gla or Asp; Xaa_{17} is des-Xaa_{17}, Asn or Gln; Xaa_{18} is des-Xaa_{18}, Asp, Glu or Gla; Xaa_{19} is des-Xaa_{19}, Phe or any unnatural aromatic amino acid; and the C-terminus contains a free carboxyl group or an amide group.

25. A method for inducing analgesia in an individual which comprises administering an effective amount of the τ-conotoxin peptide of claim 1.

26. The method of claim 24, wherein the substantially pure τ-conotoxin peptide is modified to contain an O-glycan, an S-glycan or an N-glycan.

27. The method of claim 25, wherein the substantially pure τ-conotoxin peptide is modified to contain an O-glycan, an S-glycan or an N-glycan.

28. A method for inducing analgesia in an individual which comprises administering an effective amount of a pharmaceutical composition comprising a τ-conotoxin peptide or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier, said τ-conotoxin peptide having the generic formula I: Xaa_1-Xaa_2-Xaa_3-Xaa_4-Cys-Cys-Xaa_5-Xaa_6-Xaa_7-Xaa_8-Xaa_9-Cys-Cys-Xaa_{10}-Xaa_{11}-Xaa_{12}-Xaa_{13}-Xaa_{14}-Xaa_{15}-Xaa_{16}-Xaa_{17}-Xaa_{18}-Xaa_{19} (SEQ ID NO:1), wherein Xaa_1 is des-Xaa_1, Asp, Glu or γ-carboxy-Glu (Gla); Xaa_2 is des-Xaa_2, Gln, Asn, Glu, Trp (D or L), neo-Trp, halo-Trp or any unnatural aromatic amino acid; Xaa_3 is des-Xaa_3, Gly, Ala, Asn or Gln; Xaa_4 is des-Xaa_4,Val, Leu (D or L), Ile, Ala, Gly, Glu, Gla, Asp, Ser, Thr, Phe, Trp (D or L), neo-Trp, halo-Trp (D or L) or any unnatural aromatic amino acid; Xaa_5 is Pro, hydroxy-Pro, Gln, Asn, Glu, Gla, Ala, Gly, Lys, Arg, Ile, Val, homoarginine, ornithine, N-methyl-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys or any unnatural basic amino acid; Xaa_6 is Val, Phe, Thr, Ser, Glu, Gla, Asp, Asn, Gln, Ala, Gly, Ile, Leu (D or L), Met, Pro, hydroxy-Pro, Arg, homoarginine, ornithine, Lys, N-methyl-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any unnatural basic amino acid or any unnatural aromatic amino acid; Xaa_7 is any Val,

Ile, Asn, Leu (D or L), Gln, Gly, Ala, Phe, Glu, Gla, Arg, ornithine, homoarginine, Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any unnatural basic amino acid or any unnatural aromatic amino acid; Xaa_8 is Ile, Leu (D or L), Met, Thr, Ser, Pro, hydroxy-Pro, Gln, Asp, Glu, Gla, Asn, Arg, homoarginine, ornithine, Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr, any unnatural basic amino acid, any unnatural aromatic amino acid or any unnatural hydroxy containing amino acid; Xaa_9 is des-Xaa_9, Ala, Gly, Asp, Glu, Gla, Trp (D or L) neo-Trp, halo-Trp (D or L), Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, Arg, homoarginine, ornithine, Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr or any unnatural basic amino acid; Xaa_{10} is des-Xaa_{10}, Ile, Leu (D or L), Val, Glu, Gla, Asp, Thr, Ser, Pro, hydroxy-Pro, Trp (D or L), neo-Trp, halo-Trp (D or L), Phe, any unnatural aromatic amino acid or any unnatural hydroxy containing amino acid; Xaa_{11} is des-Xaa_{11}, Gln, Asn, Leu (D or L), Ile, Val, Ala, Gly, Trp (D or L), neo-Trp, halo-Trp (D or L), Arg, homoarginine, ornithine, Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any unnatural basic amino acid or any unnatural aromatic amino acid; Xaa_{12} is des-Xaa_{12}, Ala, Gly, Phe, Trp (D or L), neo-Trp, halo-Trp (D or L) or any unnatural aromatic amino acid; Xaa_{13} is des-Xaa_{13}, Glu, Gla, Asp, Phe or any unnatural aromatic amino acid; Xaa_{14} is des-Xaa_{14}, Ile, Val or Leu (D or L); Xaa_{15} is des-Xaa_{15}, Thr, Ser, Arg, homoarginine, ornithine, Lys, N-methy-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys or any unnatural basic amino acid; Xaa_{16} is des-Xaa_{16}, Glu, Gla or Asp; Xaa_{17} is des-Xaa_{17}, Asn or Gln;

Xaa_{18} is des-Xaa_{18}, Asp, Glu or Gla; Xaa_{19} is des-Xaa_{19}, Phe or any unnatural aromatic amino acid; and the C-terminus contains a free carboxyl group or an amide group.

29. The method of claim 28, wherein the pharmaceutical composition is modified to contain an O-glycan, an S-glycan or an N-glycan.

30. A method for inducing analgesia in an individual which comprises administering an effective amount of a pharmaceutical composition comprising a τ-conotoxin peptide or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier, said τ-conotoxin peptide selected from the group consisting of:

Phe-Cys-Cys-Xaa_1-Val-Ile-Arg-Xaa_2-Cys-Cys-Xaa_3 (SEQ ID NO:2);

Phe-Cys-Cys-Xaa_1-Phe-Ile-Arg-Xaa_2-Cys-Cys-Xaa_3 (SEQ ID NO:3);

Cys-Cys-Gln-Thr-Phe-Xaa_2-Xaa_3-Cys-Cys-Gln (SEQ ID NO:4);

Xaa_4-Gly-Xaa_3-Cys-Cys-Xaa_5-Xaa_6-Asn-Ile-Ala-Cys-Cys-Ile (SEQ ID NO:5);

Gly-Cys-Cys-Ala-Arg-Leu-Thr-Cys-Cys-Val (SEQ ID NO:6);

Asn-Gly-Cys-Cys-Xaa_1-Xaa_5-Gln-Met-Arg-Cys-Cys-Thr (SEQ ID NO:7);

Asp-Xaa_3-Asn-Ser-Cys-Cys-Gly-Xaa_5-Asn-Xaa_1-Gly-Cys-Cys-Xaa_1-Xaa_3 (SEQ ID NO:8);

Xaa_4-Gly-Xaa_3-Cys-Cys-Xaa_5-Xaa_6-Asn-Ile-Arg-Cys-Cys-Val (SEQ ID NO:9);

Xaa_6-Cys-Cys-Xaa_6-Asp-Gly-Xaa_3-Cys-Cys-Thr-Ala-Ala-Xaa_1-Leu-Thr (SEQ ID NO:10);

Gly-Cys-Cys-Xaa_6-Asp-Gly-Xaa_3-Cys-Cys-Thr-Ala-Ala-Xaa_1-Leu-Thr (SEQ ID NO:11);

Asn-Gly-Cys-Cys-Arg-Ala-Gly-Asp-Cys-Cys-Ser-Arg-Phe-Xaa_6-Ile-Xaa_5-Xaa_6-Asn-Asp-Phe (SEQ ID NO:12);

Asn-Ala-Cys-Cys-Ile-Val-Arg-Gln-Cys-Cys (SEQ ID NO:13);

Asn-Gly-Cys-Cys-Arg-Ala-Gly-Asp-Cys-Cys-Ser (SEQ ID NO:14);

Cys-Cys-Xaa_1-Arg-Arg-Leu-Ala-Cys-Cys-Ile-Ile (SEQ ID NO:15);

Cys-Cys-Xaa_1-Asn-Xaa_5-Xaa_1-Cys-Cys-Phe-Ile (SEQ ID NO:16);

Gly-Cys-Cys-Ala-Met-Leu-Thr-Cys-Cys-Val (SEQ ID NO:17);

Leu-Cys-Cys-Val-Thr-Xaa_6-Asp-Xaa_3-Cys-Cys-Xaa_6-Xaa_3-Xaa_3 (SEQ ID NO:18); and

Val-Cys-Cys-Arg-Xaa_1-Val-Gln-Asp-Cys-Cys-Ser (SEQ ID NO:19);

wherein Xaa_1 is Pro or hydroxy-Pro; Xaa_2 is Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa_3 is Trp or halo-Trp; Xaa_4 is Gln or pyro-Glu; Xaa_5 is Lys, N-methyl-Lys, N,N-dimethyl-Lys or N,n,N-trimethyl-Lys, Xaa_6 is Glu or gamma-carboxy-Glu (Gla); and the C-terminus contains a carboxyl or amide group.

31. The method of claim 30, wherein the pharmaceutical composition is modified to contain an O-glycan, an S-glycan or an N-glycan.